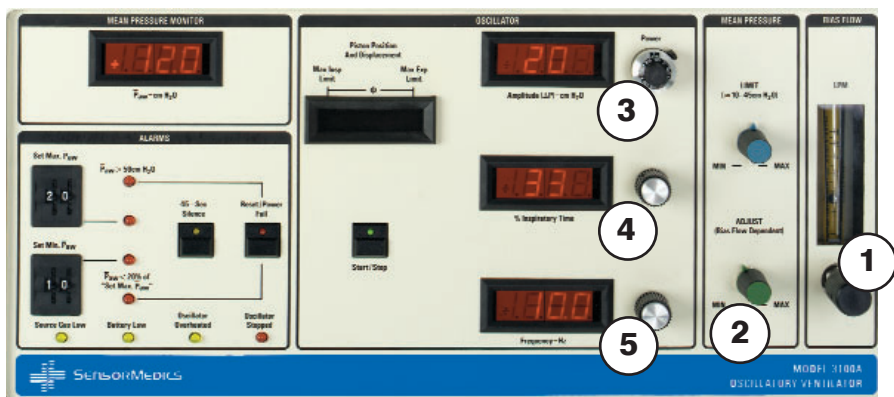


3100A Quick Reference Card



CONTROLS AT A GLANCE

1. BIAS FLOW - Adjusting Bias Flow will affect mean Paw.

Premature 8-15 LPM

Nearterm 10-20 LPM

Small child 15-25 LPM

Large Child 20-30 LPM

Lowering Bias Flow may decrease work of breathing and facilitate weaning.

2. ADJUST - Sets the mean airway pressure

This control directly affects lung volume and oxygenation.

Initial setting is slightly higher than conventional ventilation.

3. POWER - Controls piston displacement

Start with a power of 2.0 and adjust for chest wiggle to umbilicus

Adjust to achieve optimal PaCO_2 .

4. INSPIRATORY TIME % - Set to 33% for most applications

For some patients, increasing inspiratory time % to 50 can improve ventilation and increase lung recruitment.

Once set, this control is not typically changed.

5. FREQUENCY - Breath rate is expressed in hertz.

One hertz equals 60 breaths per minute (BPM).

Initial frequency settings are dependent on patient size and lung pathophysiology. Generally, the smaller the patient the higher the frequency. Lower frequencies are employed for larger children and management strategies designed to minimize the potential for gas trapping

A decrease in frequency = increased tidal volume.

An increase in frequency = decreased tidal volume.

WEANING GUIDELINES

WHILE ON HFOV:

Wean FiO_2 as tolerated to target FiO_2 .

Once FiO_2 is $<$ target FiO_2 , begin to wean mean airway pressure by increments of 1-2 cmH_2O .

Assess for adequate lung inflation with chest x-ray and arterial PO_2 .

Assess oxygenation with pulse oximetry.

IN AIR LEAK SYNDROME: Mean airway pressures are similar to those used in conventional ventilation. Higher FiO_2 's are typically used.

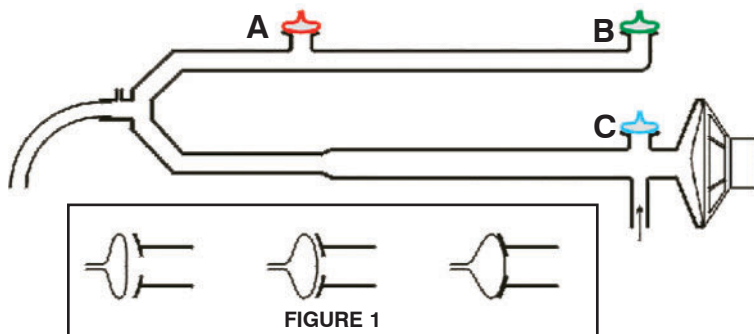
TRANSITION TO CONVENTIONAL VENTILATION, NCPAP, or Nasal Cannula, when each of the following parameters are met:

- 1) Mean airway pressure is stable and appropriate for the pathology
- 2) Patient tolerates position changes and procedures well
- 3) ABG's are acceptable and stable

These guidelines are recommendations only. For any treatment each physician must determine the appropriateness of these guidelines as they apply to specific patients.

VALVE ASSEMBLY LOCATIONS

- A. **Red** - Dump Valve, mid expiratory limb.
- B. **Green** - Mean Airway Pressure, expiratory limb.
- C. **Blue** - Limit Valve, inspiratory limb



MEAN AIRWAY PRESSURE

Mean airway pressure is regulated by controlling the inflation of the balloon valve in the expiratory limb of the circuit (Figure 1). As inflation pressure inside the balloon increases, the outflow of gas is restricted, providing mean airway pressure.

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